

Subject Description Form

Subject Code	BSE1000
Subject Title	BSE for Better Living
Credit Value	3
Level	1
Pre-requisite	Nil
Co-requisite	
Exclusion	
Objectives	This subject is a Freshman Seminar entitled “BSE for Better Living” specially devised for the first-year students of the 4-year undergraduate degree programme(s) offered by the Department of Building Services Engineering (BSE). Its objectives are to: - enthuse the students about building services engineering and “Construction and Environment” (CE); - cultivate students’ creativity, problem-solving ability, and global outlook; - expose students to the concepts and an understanding of entrepreneurship and learning-to-learn; and - engage students, in their first year of study, in desirable forms of learning at university that emphasizes self-regulation, autonomous learning, deep understanding and academic integrity.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: (a) understand the role of building services engineers and the collaborative work in the construction industry; (b) correlate various parameters with the effectiveness of relevant technologies/interventions in the BSE context for enhancing living quality; (c) explain the importance of PolyU’s CE professionals in the construction industry; (d) demonstrate creative and critical thinking, problem solving, global outlook, communication and entrepreneurship abilities for addressing issues in the CE context; (e) recognize the need for lifelong learning and demonstrate learning-to-learn capacity; (f) adopt desirable forms of learning for the university study and aware of academic integrity and plagiarism.
Subject Synopsis/ Indicative Syllabus	<u>Subject Synopsis</u> BSE has a long history in working with sustainable urban development and built environment, and is one of the leading contributors on these areas. In this subject, colleagues from the Department of Building Services Engineering in FCE will brief students the various existing technologies, latest thoughts and developments which are expected to be able to enhance the living quality of human beings, and hence sustainable urban development, through real life examples (e.g. green roof, wing walls, building orientation and architectural forms, material selection, energy efficient equipment, etc). Living quality in the present subject is not restricted to the residential environment though it is probably the most important area having substantial impact on human health.

	Information on the design of leisure and cultural establishments such as theatres, performance halls, museums, etc will also be provided to students. The importance of building services engineering and the construction industry in enhancing these living standards and sustainable development will be emphasized. Reputable industrial practitioners and alumni will be invited to give seminars to students to share their experiences in the workplace and solving problems on technical, financial and other issues in the industry. A mini project will be set up for the students to have a deeper understanding on the related technologies and the knowledge covered in the subject and how they have been applied in practice. As the contents of BSE and BRE programmes are related, BSE students will work with students from BRE during the mini project for fostering collaborations between students in order to achieve the learning outcomes and for practicing learning-to-learn skills. Talks related to CEE and LSGI in association with the mini project will be organized for a deeper understanding of Construction and Environment. <u>Indicative Syllabus:</u> Weeks 1-6: Departmental lectures (including seminars by practitioners and alumni) and tutorials Weeks 3, 7-13: Mini project briefing, workshops and presentation <i>Remark : Site visit(s) may be arranged by BSE.</i>
Teaching/Learning Methodology	The teaching and learning methodology involves inspirational lectures, mini project group work, assignments, practitioners'/alumni' seminars and tutorials. A blended approach involving a combination of teaching and an online companion site will be employed to support the teaching and learning delivery for facilitating easy access to teaching and learning materials and teacher-student and student-student interactions in class and out of class. The knowledge gained from the inspirational lectures, tutorials and other activities in the early stage of the curriculum constitute a part of the foundation for students in developing their creative thinking, problem solving, global outlook and entrepreneurship abilities in the discipline. Practitioners'/alumni' seminars are purposefully arranged to introduce students how the knowledge are applied in practice, the gap between theory and practice in the industry and the aforementioned abilities this Freshman Seminar aims to emphasize. Lastly, it is noteworthy to mention that the key feature of the teaching and learning methodology is experiential in nature and through the mini project group work, students are expected to base on what they learn through inspirational lectures and tutorials, practitioners'/alumni' seminars, etc to come up with solutions/ideas that demonstrate their creative thinking, problem solving, global outlook and entrepreneurship abilities for addressing issues in the CE context.

Assessment Methods in Alignment with Intended Learning Outcomes	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)					
			a	b	c	d	e	f
	1. Assignments (including learning-to-learn tasks)	40%	✓	✓	✓		✓	
	2. Mini Project Group Work	60%	✓	✓	✓	✓	✓	✓
	3. Online Tutorial on Academic Integrity	0%						✓
	Total	100 %						
	The assessment task 1 is knowledge-oriented and plays a part in addressing the intended learning outcomes (a) – (c) and (e) covered in inspirational lectures, tutorials and other activities in the early stage of the curriculum. The assessment task 2 is high-order in nature and the mini project group work serves as a main and effective assessed task (i.e. 60% of the overall assessment grade) for students to demonstrate their overall attainment of intended learning outcomes (a) – (f) at the end of the curriculum. The assessment task 3 is for awareness of the expected honest academic behavior and of the importance of academic integrity. Students are required to complete the online tutorial within the first 5 weeks of the subject. Students who cannot complete the tutorial will fail the subject. Information of the online tutorial can be found from the below link: http://www.polyu.edu.hk/ogur/academic_integrity/Student_Guide.pdf A letter-grading system will be used to assess students’ performance.							
	Class contact:							
	▪ Inspirational Lectures and Seminars	12 Hrs.						
	▪ Tutorials	6 Hrs.						
▪ Workshops	13 Hrs.							
▪ Presentation	4 Hrs.							
Other student study effort:								
▪ Assignments/Self Study	43 Hrs.							
▪ Preparation and Reporting for Mini Project	42 Hrs.							
Total student study effort		120 Hrs.						
Reading List and References	P.Jodidio, <i>Green Architecture</i> , Taschen, 2018 (or similar references) S.V.Szokolay, <i>Introduction to Architectural Science: the Basis of Sustainable Design</i> , Architectural Press, Oxford 2008							

	W.T. Grondzik, A.G.Kwok, Mechanical and Electrical Equipment for Buildings, Wiley, New York, 2019 (or similar references)
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